

AMENDMENT TO THE CLAIMS:

The following claim set replaces all prior versions, and listings, of claims in the application:

1. (currently amended) A method for controlling at least one of the speed and
and/or direction of movement (A, B) of a screw discharger having a screw which
is rotatable about a longitudinal axis and is moveable in a pile of bulk material,
the method comprising the steps of:
 - (a) measuring a (1, 11, 101, 201), characterised in that the bending load on
the screw (2, 12, 102, 202) of the screw discharger is measured with at
least one transducer;
 - (b) responsively generating or more transducers (112, 212) that generate a
loading signal based on the bending load measured by the at least one
transducer and directing the loading system thereby generated to a drive
system operatively connected to the screw discharger; and on the basis of
which a drive system (110, 210)
 - (c) controlling at least one of the speed and and/or direction of movement (A,
B) of the screw discharger (1, 11, 101, 201) is controlled in response to
the drive system receiving the loading signal.
2. (currently amended) A method according to claim 1, wherein characterised in
that when the bending load on the screw as measured by the at least one
transducer results in a loading value of the screw (2, 12, 102, 202) signal having
a value which falls below a preset value y_1 , the speed of movement of the screw
discharger (1, 11, 101, 201) is increased.
3. (currently amended) A method according to claim 1, wherein characterised in
that when the bending load on the screw (2, 12, 102, 202) as measured by the at
least one transducer results in a loading value which exceeds a preset value x_1 ,

at least one of the speed of movement of the screw is reduced and ~~and/or~~ the direction of movement (~~A, B~~) of the screw is changed.

4. (currently amended) A method according to claim 1, wherein characterised in that ~~that~~ when the bending load on the screw (~~2, 12, 102, 202~~) as measured by the at least one transducer results in a loading value which exceeds a preset value x_1 , the speed of movement of the screw is reduced and if the bending load at this lesser speed of movement exceeds a preset value x_2 , the value x_2 being equal to or greater than x_1 , the direction of movement (~~A, B~~) of the screw is then changed for a preset period of time.
5. (currently amended) A method according to claim 1, wherein the method comprises controlling ~~characterised in that~~ a frequency converter (~~118, 218~~) is ~~controlled~~ on the basis of the bending load on the screw (~~2, 12, 102, 202~~), and wherein the which frequency converter controls the drive system (~~110, 210~~) that controls at least one of the speed and ~~and/or~~ direction of movement (~~A, B~~) of the screw discharger (~~1, 11, 101, 201~~).
6. (currently amended) An apparatus for controlling at least one of the speed and/or and direction of movement (~~A, B~~) of a screw discharger having (~~1, 11, 101, 201~~), which screw discharger comprises a frame (~~3, 23, 103, 203~~), a discharger screw (~~2, 12, 102, 202~~) attached to the frame which is rotatable about a longitudinal axis and moveable in a pile of bulk material, and a drive system (~~110, 210~~) for driving the discharger screw, wherein characterised in that the apparatus comprises:
 - at least one or more measurement transducer transducers (~~112, 212~~) arranged to measure ~~the a~~ bending load on the screw (~~2, 12, 102, 202~~) and to transmit measurement data based on the bending load thereby measured,
 - a control unit (~~113, 213~~) for processing the measurement data transmitted from the at least one transducer (~~112, 212~~) and for converting the measurement

data into a control signal for the drive system (~~110, 210~~) that controls at least one of the speed and and/or direction of movement (~~A, B~~) of the screw discharger (~~1, 11, 101, 201~~), and

data transmission equipment (~~214, 217, 219~~) for transmitting the measurement data from the at least one transducer (~~112, 212~~) to the control unit (~~113, 213~~) and for transmitting the control signal from the control unit (~~113, 213~~) to the drive system (~~110, 210~~).

7. (currently amended) An apparatus according to claim 6, wherein ~~characterised in that~~ the drive system (~~110, 210~~) comprises a frequency converter (~~118, 218~~) arranged for controlling at least one of the speed and and/or direction of movement (~~A, B~~) of the screw discharger (~~1, 11, 101, 201~~) generated by the drive system (~~110, 210~~).
8. (currently amended) An apparatus according to claim 6, wherein the at least ~~characterised in that~~ one ~~or more~~ measurement transducer for transducers (~~112, 212~~) measuring the bending load on the screw (~~2, 12, 102, 202~~) is installed on the inside or outside surface of the screw pipe (~~107, 207~~).
9. (currently amended) An apparatus according to claim 6, wherein the at least ~~characterised in that~~ one ~~or more~~ measurement transducer for transducers (~~112, 212~~) measuring the bending load on the screw (~~2, 12, 102, 202~~) is located in the frame (~~3, 13, 103, 203~~) of the screw discharger.
10. (currently amended) An apparatus according to claim 6, wherein the at least ~~characterised in that~~ one ~~or more~~ measurement transducer for transducers includes (~~112, 212~~) is a strain-gauge transducer.